

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

- Group I, claim(s) 17-23, drawn to castable refractory compositions hardenable by adding a hydration stopper.
- Group II, claim(s) 24-29, drawn to a method for casting a premixed material.
- Group III, claim(s) 30-32, drawn to a hardened refractory body.

2. The inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the common technical feature in all three groups is a composition which includes refractory aggregate, fine refractory powder, alumina cement, a dispersing agent and a hydration stopper for the alumina cement.

3. This cannot be a special technical feature under PCT Rule 13.2, because the composition is known in the prior art. Inoue et al. (JP 06-293569A; paragraph numbers refer to the machine translation) discloses a composition which includes refractory aggregate (¶ 11), fine refractory powder (¶ 11), alumina cement (¶ 10), a dispersing agent (¶ 18) and a hydration stopper (¶¶ 10, 15) for the alumina cement.

During a telephone conversation with Peter Olexy on June 3, 2008 a provisional election was made without traverse to prosecute the invention of Group I, claims 17-23. Affirmation of this election must be made by applicant in replying to this Office action. Claims 24-32 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

5. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder.

All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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7. Claims 17-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Inoue et al. (JP 06-293569A; paragraph numbers refer to the machine translation).

Regarding claim 17, Inoue et al. teaches a castable refractory powder composition which is tempered with water (§ 1). The composition includes refractory aggregate (§ 11), fine refractory powder (§ 11), alumina cement (§ 10), a dispersing agent (§ 18) and a hydration stopper (§§ 10, 15) for the alumina cement, the hydration stopper being a material which is acidic in a state of an aqueous solution (§ 13), and the amount of the hydration stopper being controlled such that a premixed material has a pH of 6 or less (§ 13).

- Furthermore, with respect to the preamble recitation "...to obtain a premixed material hardenable by adding a hydration stopper", this language is taken to be an intended use which does not limit the scope of a composition claim. It is well settled that the recitation of a new intended use for an old product does not make a claim to that old product patentable. See *In re Spada*, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990) ("The discovery of a new property or use of a previously known composition, even when that property and use are unobvious from prior art, can not impart patentability to claims to the known composition."); *Titanium Metals Corp. of Am. v. Banner*, 778 F.2d 775, 782, 227 USPQ 773, 778 (Fed. Cir. 1985) (composition claim reciting a newly discovered property of an old alloy did not satisfy section 102 because the alloy itself was not new); *In re Pearson*, 494 F.2d 1399, 1403, 181 USPQ 641, 644 (CCPA 1974) (intended use of an old composition does not render composition claim patentable); *In re*

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Zierden, 411 F.2d 1325, 1328, 162 USPQ 102, 104 (CCPA 1969) ("[M]ere statement of a new use for an otherwise old or obvious composition cannot render a claim to the composition patentable."); *In re Sinex*, 309 F.2d 488, 492, 135 USPQ 302, 305 (CCPA 1962) (statement of intended use in an apparatus claim failed to distinguish over the prior art apparatus); *In re Hack*, 245 F.2d 246, 248, 114 USPQ 161, 162 (CCPA 1957) ("the grant of a patent on a composition or a machine cannot be predicated on a new use of that machine or composition"); *In re Benner*, 174 F.2d 938, 942, 82 USPQ 49, 53 (CCPA 1949) ("no provision has been made in the patent statutes for granting a patent upon an old product based solely upon discovery of a new use for such product").

Moreover, in view that the claimed composition and the composition of Inoue et al are indistinguishable from each other, the composition of Inoue et al is reasonably expected to be capable of being hardenable by adding a hydration stopper. Note:

“[T]he PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product. Whether the rejection is based on inherency’ under 35 U.S.C. 102, on *prima facie* obviousness’ under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same...[footnote omitted].” The burden of proof is similar to that required with respect to product-by-process claims. *In re Fitzgerald*, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980) (quoting *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)).

- Regarding claim 18, Inoue et al. discloses the hydration stopper being aluminum phosphate (claim 1).

- Regarding claim 19, Inoue et al. discloses the alumina cement being 2% by mass (Table 1) and the dispersing agent being 0.05% by mass (Table 1), based on the total amount of the refractory aggregate, the fine refractory powder and the alumina cement (Table 1).
- Regarding claim 20, Inoue et al. teaches a premixed material which is tempered with water (§ 1). The material includes refractory aggregate (§ 11), fine refractory powder (§ 11), alumina cement (§ 10), a dispersing agent (§ 18) and a hydration stopper (§§ 10, 15) for the alumina cement, the hydration stopper being a material which is acidic in a state of an aqueous solution (§ 13), and the amount of the hydration stopper being controlled such that a premixed material has a pH of 6 or less (§ 13). In view that the claimed composition and the composition of Inoue et al are indistinguishable from each other, the composition of Inoue et al is reasonably expected to be capable of being hardenable by adding a hydration stopper. Note:

“[T]he PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product. Whether the rejection is based on inherency’ under 35 U.S.C. 102, on *prima facie* obviousness’ under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same...[footnote omitted].” The burden of proof is similar to that required with respect to product-by-process claims. *In re Fitzgerald*, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980) (quoting *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)).

- Furthermore, with respect to the preamble recitation “...hardenable by adding a hydration stopper”, this language is taken to be an intended use which does not limit the scope of a composition claim. See case law citations above.

- Regarding claim 21, Inoue et al. discloses the hydration stopper being aluminum phosphate (claim 1).
- Regarding claim 22, Inoue et al. discloses the alumina cement being 2% by mass (Table 1) and the dispersing agent being 0.05% by mass (Table 1), based on the total amount of the refractory aggregate, the fine refractory powder and the alumina cement (Table 1).
- Regarding claim 23, in view that the claimed composition and the composition of Inoue et al are indistinguishable from each other, the composition of Inoue et al is reasonably expected to be capable of being stored for 5 days or more after production. Note:

“[T]he PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product. Whether the rejection is based on inherency’ under 35 U.S.C. 102, on *prima facie* obviousness’ under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same...[footnote omitted].” The burden of proof is similar to that required with respect to product-by-process claims. *In re Fitzgerald*, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980) (quoting *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LARRY THROWER whose telephone number is (571)270-5517. The examiner can normally be reached on Monday through Thursday from 7:30AM-5PM est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sam C. Yao can be reached on 571-272-1224. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Larry Thrower/
Examiner, Art Unit 4111

/Sam Chuan C. Yao/

Supervisory Patent Examiner, Art Unit 4111